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#### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

First Named Inventor:

CLARKE, GRAHAM M.

Application No.:

10/621,620

Confirmation No.:

CERTIFICATE OF MAILING OR TRANSMISSION [37 CFR § 1.8(a)]

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1875

Filed:

July 17, 2003

Title:

MICRONEEDLE DEVICES AND MICRONEEDLE DELIVERY

I hereby certify that this correspondence is being:

Patent and Trademark Office at 571-273-8300.

**APPARATUS** 

### INFORMATION DISCLOSURE STATEMENT

Mail Stop: Amendment Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

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Dear Sir:

Pursuant to 37 CFR §§ 1.56, 1.97, and 1.98, enclosed is a completed Form PTO-1449, citing references submitted for consideration by the Examiner. It is respectfully requested that the Examiner initial and return the enclosed Form PTO-1449 to indicate that each reference has been considered.

Copies of any cited foreign patents, foreign publications, non-patent literature documents, and any pending U.S. applications filed before June 30, 2003, are enclosed. Copies of any pending U.S. applications filed after June 30, 2003 that can be accessed on the USPTO's IFW system are not enclosed as per USPTO Waiver dated September 21, 2004. Copies of any U.S. patents and published U.S. patent applications are not enclosed.

This Information Disclosure Statement is being mailed after receipt of a first Office Action on the merits, but prior to the mailing of a Notice of Allowance under 37 CFR § 1.311.

### Fees:

13-3723. One copy of this sheet marked duplicate is also enclosed.
Any required fee will be paid at the time of EFS-Web submission.
☑ If necessary, charge any required fee, or credit any overpayment to Deposit
Account No. 13-3723

Respectfully submitted,

<u>Cluggest 1, 2006</u>

57901US005 IDS 3 Office of Intellectual Property Counsel 3M Innovative Properties Company Facsimile No.: 651-736-3833

# STATEMENT BY APPLICANT

(Use as many sheets as necessary)

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Application Number	10/621,620			
Filing Date	July 17, 2003			
First Named Inventor	Graham M. Clarke			
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Patent Documents									
Exam.	Cite No.	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear				
	A1	Doc. Number-(Kind Code if Known) US- 2619962	12/02/52	Rosenthal	rigules Appeal				
			05/15/62	McConnell et al.					
	A2	US- 3034507		Rosenthal					
	A3	US- 3072122	01/08/63						
	A4	US- 3074403	01/22/63	Cooper et al.					
	A5	US- 3123212	03/03/64	Taylor et al.					
	A6	US- 3136314	06/09/64	Kravitz					
	A7	US- 3221740	12/07/65	Rosenthal					
	A8	US- 3246647	04/19/66	Taylor et al.					
	A9_	US- 3678150	07/18/72	Szumski et al.					
	A10	US- 3905371	09/16/75	Stickl et al.					
	A11	US- 4237906	12/09/80	Havstad et al.					
	A12	US- 4304241	12/08/81	Brennan					
	A13	US- 5250023	10/05/93	Lee et al.					
	A14	US- 5262128	11/16/93	Leighton et al.					
	A15	US- 5342737	08/30/94	Georger, Jr. et al.					
	A16	US- 5457041	10/10/95	Ginaven et al.					
	A17	US- 5611806	03/18/97	Jang					
	A18	US- 5657516	08/19/97	Berg et al.					
	A19	US- 5658515	08/19/97	Lee et al.					
	A20	US- 5879326	03/09/99	Godshall et al.					
	A21	US- 5983136	11/09/99	Kamen					
	A22	US- 6050988	04/18/00	Zuck					
	A23	US- 6090790	07/18/00	Eriksson					
	A24	US- 6230051B1	05/08/01	Cormier et al.					
	A25	US- 6256533 B1	07/03/01	Yuzhakov et al.					
	A26	US- 6312612 B1	11/06/01	Sherman et al.					
	A27	US- 6322808 B1	11/27/01	Trautman et al.					
	A28	US- 6334856 B1	01/01/02	Allen et al.					

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## INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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	U.S. Patent Documents								
Exam.	Cite	Document Number	Publication Date	Name of Patentee	Pages, Columns, Lines, Where Relevant Passages or Relevant				
Init.*	No.	Doc. Number-(Kind Code if Known)	MM-DD-YYYY	or Applicant of Cited Document	Figures Appear				
	A29	US- 6379324 B1	04/30/02	Gartstein et al.					
	A30	US- 6451240 B1	09/17/02	Sherman et al.					
	A31	US- 6454755 B1	11/24/02	Godshall					
	A32	US- 6503231 B1	01/07/03	Prausnitz et al.					
	A33	US- 6532386 B2	03/11/03	Sun et al .					
	A34	US- 6533949 B1	03/18/03	Yeshurun et al.					
	A35	US- 6551849 B1	04/22/03	Kenney					
	A36	US- 6565532 B1	05/20/03	Yuzhakov et al.					
-	A37	US- 6591124 B2	07/08/03	Sherman et al.					
	A38	US- 6595947 B1	07/22/03	Mikszta et al.					
	A39	US- 6603998 B1	08/05/03	King et al.					
	A40	US- 6605332 B2	08/12/03	Calhoun et al.					
	A41	US- 6652478 B1	11/25/03	Gartstein et al.					
	A42	US- 6663820 B2	12/16/03	Arias et al.					
	A43	US- 6686299 B2	02/03/04	Montemagno et al.					
	A44	US- 6713291 B2	03/30/04	King et al.					
	A45	US- 6743211 B1	06/01/04	Prausnitz et al.					
	A46	US- 6770480 B1	08/03/04	Canham					
	A47	US- 6797276 B1	09/28/04	Glenn et al.					
	A48	US- 6835184 B1	12/28/04	Sage et al.					
	A49	US- 6881203 B2	04/29/05	Delmore et al.					
	A50	US- 6899838 B2	05/31/05	Lastovich					
<u> </u>	A51	US- 6908453 B2	06/21/05	Fleming et al.					
	A52	US- 6931277 B1	08/16/05	Yuzhakov et al.					
	A53	US- 2002/0016562 A1	02/07/02	Cormier et al.					
•	A54	US- 2002/0045859 A1	04/18/02	Gartstein et al.					
	A55	US- 2002/0053756 A1	05/09/02	Powell et al.					
	A56	US- 2002/0082543 A1	06/27/02	Park et al.					

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**Date Considered:** 

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	A57	US- 2002/0095134 A1	07/18/02	Pettis et al.	<b>3</b>					
	A58	US- 2002/0138049 A1	09/26/02	Allen et al.						
	A59	US- 2002/0169416 A1	11/14/02	Gonnelli et al.						
	A60	US- 2002/0177858 A1	11/28/02	Sherman et al.						
	A61	US- 2002/0198509 A1	12/26/02	Mikszta et al.						
	A62	US- 2003/0078549 A1	04/24/03	Stupar et al.						
	A63	US- 2003/0093040 A1	05/15/03	Mikszta et al.						
	A64	US- 2003/0095582 A1	05/22/03	Ackley						
	A65	US- 2003/0135167 A1	07/17/03	Gonnelli						
	A66	US- 2003/0135201 A1	07/17/03	Gonnelli						
	A67	US- 2003/0148401 A1	08/07/03	Agrawal et al.						
	A68	US- 2003/0181936 A1	09/25/03	Trautman et al.						
	A69	US- 2003/0199810 A1	10/23/03	Trautman et al.						
	A70	US- 2004/0049150 A1	03/11/04	Dalton et al.						
	A71	US- 2004/0060902 A1	04/01/04	Evans et al.						
	A72	US- 2004/0077994 A1	04/22/04	Lastovich et al.						
	A73	US- 2004/0106904 A1	06/03/04	Gonnelli et al.						
	A74	US- 2004/0176732 A1	09/09/04	Frazier et al.						
	A75	US- 2005/0025778 A1	02/03/05	Cormier et al.						
	A76	US- 2005/0049549 A1	03/03/05	Wong et al.						
	A77	US- 2005/0049625 A1	03/03/05	Shaya et al.						
	A78	US- 2005/0065463 A1	03/24/05	Tobinaga et al.						
	A79	US- 2005/0106226 A1	05/19/05	Cormier et al.						
	A80	US- 2005/0118388 A1	06/02/05	Kingsford						
	A81	US- 2005/0137525 A1	06/23/05	Wang et al.						
	A82	US- 2005/0261631 A1	11/24/05	Clarke et al.						

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	Foreign Patent Documents										
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Init.*	No.	Ctry. Code	Number-KindCode (If known)	MM-DD-YYYY	Applicant of Cited Document	or Relevant Figures Appear	(Check if yes)				
	B1	EP	0 407 063 A1	01/09/91			Х				
	B2	wo	01/36037 A2	05/25/01			X				
	В3	wo	2005/051455 A2	06/09/05			Х				
	B4										
	B5										
	В6										
	B7										

OTHER DOCUMENTS				
Exam. Init.*	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	Translation (Check if yes)	
	C1	Daddona, P.; "Recent advances in peptide, protein and macromolecule drug delivery"; Current Opinion in Drug Discovery & Development 1999 2(2):168-171		
	C2	Kaushik, S et al.; "Lack of Pain Associated with Microfabricated Microneedles"; Anesth Analg; 2001, 92:502-504		
	C3	Henry S. et al.; "Microfabricated Microneedles: A Novel Approach to Transdermal Drug Delivery"; Journal of Pharmaceutical Sciences; Vol. 87, No. 8, August 1998 pps. 922-925		
	C4	McAllister, D. et al.; "Microfabricated Microneedles for Gene and Drug Delivery"; Annu. Rev. Biomed. Eng.; 2000; 02:289-313		
	C5	McAllister, D. et al.; "Solid and Hollow Microneedles for Transdermal Protein Delivery"; Proceed. In'tl. Symp. Control. Rel. Bioact. Materi., 26; July 1999; Controlled Release Society, Inc.; pps. 192-193		
	C6	Griss, P. et al; "Novel, Side Opened Out-of-Plane Microneedles for Microfluidic Transdermal Interfacing; IEEE; 2002; pps. 467-470		
	C7	Weber, L. et al.; "Micro molding - a powerful tool for the large scale production of precise microstructures"; SPIE Vol. 2879; pps. 156-167		
	C8	Edwards, T. et al.; "Rapid Tooling Using SU-8 for Injection Molding Microfluidic Components"; Proceedings of SPIE, Vol. 4177 (2000) pps. 82-89		

*Examiner:	Date Considered:
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